

Name : François Méot

Institution : Brookhaven National Laboratory

Title of presentation : Exploring a possible origin of a 10~15 degree y-normal spin tilt at RHIC polarimeters

Type of presentation : Oral

E-Mail : fmeot@bnl.gov

Abstract

Spin tilt, about 16 and 9 degrees from vertical, in respectively RHIC Blue and Yellow rings, has been observed during 255 GeV polarized proton RHIC run 13, at the p-carbon polarimeters, about 70 m away from IP12. A possible origin of this y-normal tilt is in a spin rotation angle defect at one of, or both, RHIC helical snakes. This possible cause has been investigated by scanning the rotation axis of both snakes, as well as their spin rotation angle, in the vicinity of their regular operation values. The simulations presented and discussed here show that such snake angle defects may potentially contribute a substantial amount in the observed spin tilt.